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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,457

06/01/2006

Niaz Irekovich Akishev

290319US41X PCT

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05/19/2009

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EXAMINER

GOFF II, JOHN L

ART UNIT

PAPER NUMBER

1791

NOTIFICATION DATE

DELIVERY MODE

05/19/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/581,457	<b>Applicant(s)</b> AKISHEV ET AL.	
	<b>Examiner</b> John L. Goff	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/22/09</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This action is in response to the amendment filed on 2/21/09.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Claim Rejections - 35 USC § 112***

3. Claims 2-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 2 requires “the width is not less than double a radius of a blank material bending at the parts during shaping of the core”. It is unclear what is required by this limitation, and in particular “double a radius of a blank material bending at the parts”. This limitation is interpreted as requiring the width is not less double than the amount of blank material bending at the parts, i.e. the width is at least as large as the bend.
5. Claim 3 requires “impregnating the blank comprises preserving the blank in a condition reinforcing fabric”. It is unclear what is required by this limitation, and in particular “preserving the blank in a condition reinforcing fabric”. The limitation is interpreted as requiring the blank is a reinforcing fabric.

***Claim Rejections - 35 USC § 102/103***

6. Claims 1-4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Desyatov et al. (RU 2057647 and see also the abstract and applicants description on page 2 of the specification).

Desyatov discloses a method for production of a sandwich panel core from composites comprising placing/providing a blank from a reinforcing material, impregnating the blank with binder at discrete portions within the blank, hardening the binder by hot-pressing to obtain a plane semi finished-blank comprising a set of substantially rigid parts (1) detached from each other and having a shape of core sides, deforming the semi finished blank to obtain a core relief with required geometries, impregnating the blank with a binder along a full surface of the blank (2) to obtain a prepreg, and final hardening of the binder in the prepreg is applied within boundaries of the parts, and conditions slowing down/stopping the hardening along the prepreg between the parts are created (See the abstract and applicants description on page 2 of the specification).

As there is no translation of Desyatov it is not entirely clear that Desyatov discloses a heat supply for hardening the binder in the final hardening step. However, in the event Desyatov does not specifically disclose a heat supply the following rejection applied. Desyatov teaches the binder is cured in the first hardening step by supplying heat to the blank (See applicants description on page 2 of the specification). It would have been obvious to one of ordinary skill in the art at the time the invention was made to perform the final hardening taught by Desyatov in the same manner as the first hardening, i.e. by supplying heat, as this is the technique for curing the binder taught by Desyatov.

Art Unit: 1791

Regarding claim 2, in Desyatov the width of the prepreg zones between the parts having the form of the core ridges is provided in the course of hot-pressing, and the width is not less than double the radius of the blank material bending at these parts when shaping the core.

Regarding claims 3 and 4, Desyatov teaches the impregnated blank is a reinforcing fabric including glass fabric or carbon fabric.

7. Claims 1-4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lewis et al. (U.S. Patent 4,347,287).

Lewis discloses a method for production of a sandwich panel core from composites comprising placing/providing a blank from a reinforcing material (13), impregnating the blank with a binder (19) along a full surface of the blank to obtain a prepreg, hardening the binder by hot-pressing (23) to obtain a plane semi finished-blank comprising a set of substantially rigid parts (57) detached from each other by a width (57) and having a shape of core sides, deforming the semi finished blank to obtain a core relief with required geometries, and final hardening of the binder in the prepreg is applied within boundaries of the parts (57), and conditions slowing down/stopping the hardening along the prepreg between the parts are created (Figures 1, 3, 5, and 6 and Column 5, line 60 to Column 6, line 60).

Lewis appears to teach in the final hardening a heat is supplied from the adjacent rigid parts (57) (Column 6, lines 41-44). However, in the event it is shown Lewis does not necessarily expressly disclose a heat supply for the final hardening the following rejection would apply. Lewis teaches the binder is cured in the first hardening step by supplying heat to the blank. It would have been obvious to one of ordinary skill in the art at the time the invention was made to

Art Unit: 1791

perform the final hardening taught by Lewis in the same manner as the first hardening, i.e. by supplying heat, as this is the technique for curing the binder taught by Lewis.

Regarding claim 2, in Lewis the width of the prepreg zones between the parts having the form of the core ridges is provided in the course of hot-pressing, and the width is not less than double the radius of the blank material bending at these parts when shaping the core (Figures 5, 6, and 9).

Regarding claims 3 and 4, Lewis teaches the impregnated blank includes a reinforcing fabric including glass fabric or carbon fabric (Column 3, lines 23-30).

### ***Claim Rejections - 35 USC § 103***

8. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Desyatov in view of Desyatov '604 (RU2052604 and see also the abstract).

Desyatov is described above in full detail. Desyatov does not specifically describe the final hardening includes assembling a core skin with the prepreg via a film, i.e. thin layer or coating, adhesive. It was known in the art that a prepreg of the type taught by Desyatov is adhered between two core-skins with a thin layer or coating, i.e. film, of adhesive to form a sound absorbing panel as shown by Desyatov '604 (See abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the final hardening taught by Desyatov a step of assembling the prepreg between two core-skins and adhesive films as shown by Desyatov '604 such that following final hardening a sound absorbing panel is produced.

Art Unit: 1791

9. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis in view of Strachan (GB 2259044).

Lewis is described above in full detail, it being noted Lewis is forming a pultruded prepreg. Lewis does not specifically describe the final hardening includes assembling a core skin with the prepreg via a film, i.e. thin layer or coating, adhesive. It was known in the art that pultruded articles for example of the type taught by Lewis are finished with an outer core-skin adhered to the article with a thin layer or coating, i.e. film, of curable adhesive to form the article with a decorative appearance as shown by Strachan (page 1, first paragraph and page 3, first full paragraph and page 4, first full paragraph). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the final hardening taught by Lewis a step of assembling the prepreg with an outer core-skin including a curable adhesive film as shown by Strachan such that following final hardening a decorative product is produced.

### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

Applicants argue, "Instead, Desyatov simply recites a "final solidification of the article" in its Abstract. Desyatov does not disclose or suggest any further details regarding the final solidification. Further, as stated in the original specification at page 2, lines 17-21, the main shortcoming of Desyatov which the current invention cures is the impossibility of executing discrete binder application onto a preliminarily marked-out fabric plane sheet along the parts corresponding to folded type core side ridges when using thin fabrics."

Art Unit: 1791

The final solidification taught by Desyatov is to solidify the binder in the fold regions the same as applicants. The argument regarding discrete binder application in Desyatov is noted however the claims are not commensurate in scope with this argument. The claims do not require that the step of “impregnating the blank with a binder along a full surface of the blank to obtain a prepreg” occur before the hardening such that impregnating within the fold regions taught by Desyatov prior to the final hardening meets the limitation of “impregnating the blank with a binder along a full surface of the blank to obtain a prepreg”.

Applicants further argue, “Additionally, according to the original specification at page 2, lines 22-28, because the material of the prepreg reinforcing base in Desyatov has a capillary-porous structure, when applying the binder onto the parts corresponding to the side ridges in the folded structure in Desyatov, the binder may penetrate to areas of the bending lines. Thus, in the next shaping stage when applying heat to the blank, the active hardening of the binder will also occur in the areas of the bending lines. This will result in a reduction of mobility of the blank along the bending lines and will impede the process of transforming the blank into a 3-D structure. The method described in Claim 1 improves the process of Desyatov by supplying the heat for hardening the binder in the obtained prepreg only within the boundaries of the rigid parts.”.

The claims are not commensurate in scope with this argument. Neither the claimed “hardening” step nor “final hardening step” require supplying the heat only within the boundaries of parts to be cured.



Art Unit: 1791

***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571)272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1791

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John L. Goff/  
Primary Examiner, Art Unit 1791